# English learner status in Florida public schools is correlated with significantly lower graduation rates

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#### SUMMARY

Many studies have focused on the relationship between socioeconomic factors and graduation rates. One such factor is English language learner (ELL) status. It is vital to study the ELL student population, as well as the factors contributing to their performance, because ELL students make up the fastest growing segment of the public school population nationally. We hypothesized that ELL status would play a significant role in graduation rates in Florida. Our study showed that over the past five years Florida ELL students consistently had the lowest graduation rates of all student subtypes measured. ELL students had significantly higher dropout rates than non-ELL students. Additionally, analysis of the student distribution throughout the state highlighted that greater than 61% of ELL students are attending school in just five of the 68 Florida counties. Our study also investigated the correlation between economic disadvantage and ELL students and found that 10 counties showed a correlation between ELL status and economic disadvantage for greater than 80% of their ELL student population. Although Spanish is the predominant primary language for ELL students, Hispanic graduation rates did not differ significantly from those of white students. Interestingly, former ELL students who are more than two years past the ELL status classification had the same graduation rate as their non-ELL peers. Thus, it is important to not only assess where and how to implement resources to assist ELL students but also employ community outreach to change biases or potential peer influences associated with schooling.

#### INTRODUCTION

A recent study has shown that obtaining a high school diploma leads to both higher income levels and lower unemployment rates than not obtaining a high school diploma in the United States (1). According to a Brookings article, policymakers should ensure that gaps between subgroups should be narrowed so that more young Americans graduate high school. To that end, the Department of Education requires states to report high school graduation rates yearly so that they can track progress nationally (2).

The Every Student Succeeds Act (ESSA), signed by President Obama on December 10, 2020, is a federal law that requires states to report the graduation rates of students, including a breakdown showing graduation rates by subgroup (U.S. Department of Education) (3). Subgroups include each major racial and ethnic group, economically disadvantaged students, children with disabilities, English learners, children who are homeless, and children in foster care (3). ESSA funding is regulated by individual states, as the states are responsible for administering the largest grant programs in the ESSA. Therefore, when assessing any subgroup's performance toward graduation rates, it is important to ascertain not only how a subgroup performs at a national level but also to look specifically at that group's performance at the state level. Specific subgroups may perform differently or make up different proportions of the student body when looking from state to state. Since each state will want to apply funds to assist their struggling populations most effectively, it is important to focus on state-level results.

The ability to investigate the performance of these subgroups allows educators and policy makers to identify the groups most in need of additional programs and/or funding in order to close the "graduation gap." The graduation gap is the difference in graduation rates between different groups of students when sorted by their subtypes. Many factors can contribute to the gap, including economic and demographic factors. Sometimes, more than one of these factors can contribute to education outcomes. For example, one study showed that Hispanic and Black adults without a four-year college degree were more likely than their White counterparts to say that needing to work to support their family was a major reason that they did not obtain their college degree; this shows that, in the case of college degrees, both racial and economic factors may be at play simultaneously (4).

While many studies have focused on racial and economic factors in education, one subgroup that has been understudied is the English language learner (ELL) student population. An ELL is defined in Florida as a student who was not born in the U.S. and whose native language is something other than English, a student who speaks a language other than English at home, or a student who is an American Indian or Alaskan Native and comes from a home in which a language other than English has had a significant impact on the student's level of English language proficiency (5). In addition, the student, as a result of any of the above, must have sufficient difficulty speaking, reading, writing, or understanding the English language to deny the student the opportunity to learn successfully in classrooms in which the language of instruction is English (6).

According to a policy research brief produced by the National Council of Teachers of English, ELL students are the fastest growing segment of the student population nationally (7). In grades 7–12, the ELL population increased by approximately 70% between 1992 and 2002 (7). In 2020, ELL students made up 10.3% of students in U.S. public schools. That same year, ELL students were reported as comprising 9.7% of the students in Florida public schools (8). According

to data from the National Center for Education Statistics, in 2020, Florida had the third largest ELL population in the United States, with approximately 265,000 ELL students (9). This number continues to rise, with the Office of Program Policy Analysis and Government Accountability reporting that there were 304,865 ELL students in Florida during the 2022-2023 school year (10). An assessment of how this large and fast-growing segment of the population is performing with regard to graduation rates is vital in order to best assist this sizeable group, which will contribute to the future economy and work force.

In this study, we focused on the state of Florida, the third most populous state in the country according to population estimates for 2022 from the US Census Bureau (11). We used data from the Florida Department of Education for the years 2014-2022 and performed statistical analysis to examine if any differences in graduation rates between ELL and non-ELL students were observed and if they were consistent over time. We hypothesized that ELL status would play a significant role in graduation rates in Florida.

Our results showed that ELL students had a significantly lower graduation rate than their non-ELL counterparts, and that this lower graduation rate, when observed year after year, displayed ELL students graduating at rates 13% less than non-ELL students. In fact, the ELL student subgroup had the lowest graduation rate of any of the student demographics and characteristics examined. Potential contributing factors that were also investigated indicated that ELL students had a significantly higher dropout rate than non-ELL students. Additionally, map and county data analysis highlighted that throughout the state of Florida, over 61% of ELL students in kindergarten through 12th grade were attending school in only 5 of the state's 68 counties, showing that the ELL students are clustered in certain areas. These additional factors may play an important ancillary role in the performance of ELL students.

The fact that ELL students make up over 300,000 students in Florida alone (8), and that they are the fastest growing segment of the student population, underscores the importance of examining the graduation rate of this specific group (8). Understanding the factors behind the

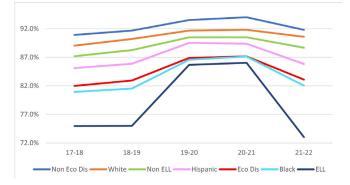


Figure 1: Florida graduation rates from 2017 to 2022 broken down by student subgroup. Line graph showing the graduation percentage for each academic year subdivided into students that were classified as economically disadvantaged (Eco Dis), noneconomically disadvantaged (non Eco Dis), English language learner (ELL), non-English language learner (non ELL), Black, white, or Hispanic. We used data from the Florida Department of Education's published yearly education data (17).

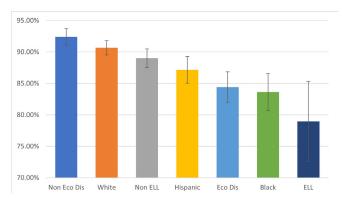


Figure 2: Average Florida graduation rates from 2017 to 2022 broken down by student subgroup. Bar graph showing the average graduation percentage for each student classification along with their corresponding standard deviation bars: economically disadvantaged (Eco Dis), non-economically disadvantaged (non Eco Dis), English language learner (ELL), non-English language learner (non ELL), black, white, or Hispanic. We used data from the Florida Department of Education's published yearly education information (17).

lower graduation rates of this population will best allow for implementation of the most effective policies and programs to assist this group.

#### RESULTS

We analyzed Florida high school graduation rates from the Florida Department of Education for school years 2017 to 2022, broken down by student subgroup (12). In order to ascertain whether ELL classification affected the graduation rates of students, we plotted the rate of ELL student graduation in Florida against the graduation rates for 6 other subgroups: economically disadvantaged, non-economically disadvantaged, non-English language learner, black, white, or Hispanic. ELL students had the lowest graduation rate of all subgroups for each year examined (Figure 1). The graduation gap between ELL and non-ELL students was 15.7% for the 2021-2022 academic year, with non-ELL students graduating at a rate of 88.7% and ELL students graduating at a rate of 73% (Figure 1). Over a period of 5 years between 2017-2022, the average graduation rate for ELL students was 78.05% ± 6.37%, which was significantly lower than the average graduation rate for non-ELL students of 89.03% ± 1.45% (p < 0.05) (Figure 2).

When looking at the data for ELL students, the historical data was available for a longer, eight-year period spanning from 2014-2022. Analysis of the graduation rate over eight years (2014-2022) revealed that the graduation rate was significantly different (t-test and single factor ANOVA, p<0.003) between the ELL and non-ELL students every year (**Table 1**). This further supported the hypothesis that Florida ELL students consistently had worse outcomes with regard to graduation rate.

In order to investigate potentially contributing factors, we further delved into the racial makeup, physical distribution, and dropout rate of ELL students. The dropout rate of ELL students was significantly higher (two-tailed t-test, p < 0.0004) than their non-ELL schoolmates, with Florida's ELL students averaging a dropout rate of 5.6% ± 0.6% over the 2017-2022 academic years while non-ELL students dropped out at a rate of 3% ± 0.2% during that same five-year period (**Figure 3**).

Academic Year	2014- 2015	2015- 2016		2017- 2018		2019- 2020	2020- 2021	2021- 2022
ELL	59.5	62	67.3	75	75	85.7	86.1	73
Non-ELL	79.3	82.2	83.6	87.2	88.3	90.5	90.5	88.7
Gap	19.8	20.2	16.3	12.2	13.3	4.8	4.4	15.7

Table 1: Percentage of Florida students graduating with a standard diploma in 4 years. Rates of graduation are shown for ELL students and -non-ELL students. We used data from the Florida Department of Education's Strategic Plan (16). The gap between these groups is also indicated, providing the yearly graduation gap percentage (Gap). ELL vs Non-ELL t-test, p < 0.003.

In 2020, greater than 77% of ELL students nationally identified themselves as Hispanic (NCES) (8). Spanish is also the native language of the majority of ELL students in Florida. Therefore, we compared rates of graduation between Hispanic and white students between 2014-2022. This analysis showed that the average graduation rate for Hispanic students ( $84.2\% \pm 4.6\%$ ) was not significantly different than the graduation rate for white students during that same eight academic year period from 2014-2022 ( $88.4\% \pm 3.4\%$ ) (p >.05) (**Figure 4**).

Additionally, national data has indicated that ELL students are heavily concentrated in certain districts and schools. For example, in 2014-2015, over 60% of all ELLs in the nation were enrolled in only 15% of the nation's schools (13). In order to see if this pattern held true in Florida, enrollment maps for students enrolled in grades from kindergarten through 12th grade were generated for the spring 2021-2022 timeframe from the same Florida Department of Education database. These maps showed that ELL students were clustered in specific parts of the state. Out of the 68 counties in the state, 5 counties educated over 61% of the statewide ELL population (**Table 2**).

In order to examine if economic disadvantage and ELL status had any correlation, the top 10 economically disadvantaged counties were plotted next to their proportion of ELL students. In these 10 counties, greater than 80% of the ELL students also had an economic disadvantage **(Table 3)**.

#### DISCUSSION

The tracking of demographic and socioeconomic data for students nationally and statewide is beneficial in allowing school systems and public policy makers to identify and assist the subsets of students who are struggling the most academically. The fact that ELL students make up over 300,000 students in Florida alone, and that they are the fastest growing segment of the student population, underscores the importance of examining the graduation rate of this specific group (8). Understanding the needs of this population and finding policies and programs to assist this group is vital.

The results of this study show that, in Florida, students who are classified as ELLs have a graduation rate significantly lower than the English-speaking student population. Classification as an ELL student was shown to be associated with a significantly lower graduation rate than those of non-ELL students. In fact, ELL students had the lowest graduation rate of all groups studied between 2017 and 2022. Interestingly, we found that the non-economically disadvantaged group had the highest graduation rate, regardless of race or any other factor.

Additionally, we found that ELL students had a significantly

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higher dropout rate than non-ELL students. A prior study from Fordham University showed that ELL students were more likely to drop out of high school not only because they are learning English, but also because they are significantly more likely than the general population to be disadvantaged, poor, and born to immigrant parents, groups that are already at a heightened risk of dropping out (14). Since we found that the non-economically disadvantaged students perform highest in terms of graduation rate, it would be helpful to extend our analysis to find what proportion of ELL students are also economically disadvantaged, as the characterization of the factors that most affect and predict whether a student will graduate would help inform how to best assist disadvantaged students. While it would seem logical that ELL students are often coming from immigrant families who are also economically disadvantaged, the Florida published data does not currently allow for examination of ELL status and economic status together.

The majority of ELLs in Florida are Spanish-speaking. In an effort to determine if the lowered graduation rate of ELLs was associated with a cultural bias or factor other than language, the graduation rate of Hispanic students overall was investigated. No significant difference between the graduation rate of Hispanic students was seen in relation to that of white students. Therefore, no correlation was seen between the lower graduation rate of ELLs and a cultural bias.

We found that greater than 61% of the ELL population lived in just five of Florida's 68 counties, indicating that the ELL community either typically settles in larger cities or often settles around one another. These counties include Miami, Tampa, and Orlando; all of which are larger cities and also which have significant Spanish speaking populations. From the data, it is difficult to ascertain which case was the larger contributing factor. However, either way, knowing that a few counties house the lion's share of ELL students should allow policymakers to earmark and allocate funds to these specific areas for ELL assistance. It also highlights the potential importance of peer interaction and community involvement in motivating ELL students in these communities.

Since ELL learners performed the worst in terms of graduation rate and non-economically disadvantaged students performed best, we then investigated the relationship between ELL status and economic disadvantage. It is also known that economically disadvantaged students face significantly lower

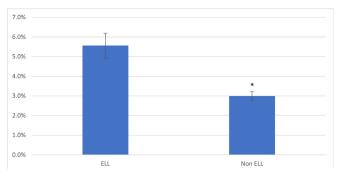


Figure 3: Dropout percentage for ELL and Non-ELL students from 2017–2022. Florida's ELL students averaged a dropout rate of  $5.6\% \pm 0.6\%$  from 2017–2022 while non-ELL students dropped out at a rate of  $3\% \pm 0.2\%$  during the same 5-year period. Two-tailed t-test, \*p < 0.0005.

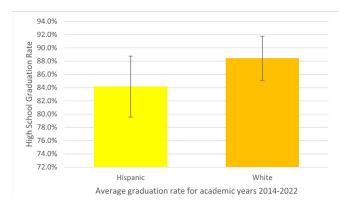


Figure 4: Graduation Rate for Hispanic and white students from 2014–2022. Florida's Hispanic students averaged a graduation rate of  $84.2\% \pm 4.6\%$  from 2014–2022 while white students had an average graduation rate of  $88.4\% \pm 3.34\%$  during the same eight-year period. P > 0.05.

graduation rates, and, as many ELL students were from lower income immigrant families, the combination of these two factors creates a more layered statistical reasoning for the lowered graduation rate. While this data is not available specifically for high school graduation outcomes, and data is not provided for non-economically disadvantaged students, we could look at some data for the larger group of K-12 students throughout the state and whether or not their counties were considered economically disadvantaged. In 10 counties, greater than 80% of the students that had the ELL status were also economically disadvantaged. This allows us to see that there may be a relationship between ELL students and economic disadvantage. Therefore, ELL students may not have just the language barrier to worry about, they may also have pressure from family to hold outside jobs rather than focus on schooling, or the economic disadvantage may otherwise impact the importance of school as a primary focus. Future studies could examine parental education level to see if there is a familial predisposition against higher level education, and may stress the role of programs geared toward first generation college students. Additionally, students who are economically disadvantaged may not have the resources they need, such as textbooks, special graphing calculators, and other study and notetaking materials. Focusing efforts in these areas to provide materials could prove extremely beneficial for this specific student population.

One additional question that arises from this study is what strategy can be employed to help ELL students succeed academically. A study in Oregon found that former ELLs actually graduated at higher rates than students who were never classified as ELLs (80% vs 77%) (15). While we tried to gather data or generate reports that would show the graduation outcomes of students who were 4 years past the ELL status, this was not possible with the available Florida data. It would be beneficial to gather similar data in the state of Florida to study the graduation rate on students who successfully achieved English proficiency status. Understanding that can help policymakers and parents to see the difference in graduation rates once students have mastered the language of instruction.

In order to best assist this population, several steps can be taken by communities. Early literacy programs have been shown to be beneficial. Studies have found that ELLs gain

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more from their preschool experiences than their Englishspeaking peers. It was found that participation in preschool provided early exposure to English, thereby lowering the age at which full proficiency is achieved (16). Reaching English language proficiency prior to first grade was shown to narrow or eliminate reading and math achievement gaps between ELLs and non-ELLs (16). Additionally, as this study found that ELLs clustered in a few geographic regions, it would be beneficial for these areas to employ bilingual teachers that can communicate with the students and their parents in their native language, allowing the parents and the community to become more involved in the educational goals for these students. Enrichment and tutoring for students struggling to learn concepts due to the additional time required to process information in a different language could also assist students in better understanding the material. While programs that provide resources, materials, and tutoring to students in this community are vital, there may not be time for all of these students entering high school to learn the new language quickly enough to graduate. Therefore, in addition to the resources mentioned above, a focus on technical colleges that will educate this segment in highly employable skills that also lead to high paying careers and future options would be beneficial. It is important to provide attention and resources to ELL students as early as possible. In doing so, the pathway to success will be open to many more students.

#### MATERIALS AND METHODS

#### Florida graduation rates over time

We used data from the Florida Department of Education's published yearly education data (12). For visual clarity of subgroups on the graph, the trendlines for American Indian, Asian, Pacific Islander, and 2 or more race respondents were not plotted as these subgroups comprised a very small proportion of the overall student body.

The data utilized in this study uses the Florida English Language Learners definition, as defined in the Florida Department of Education, Closing the Gap report (12). This includes students who are currently receiving services designed to meet the instructional needs of ELL students and also students who have exited the English as a Second

2021-2022						
County	% of Florida's ELL Student Population					
Miami Dade	22.38					
Broward	10.85					
Palm Beach	10.18					
Orange	9.99					
Hillsborough	7.61					
Lee	5.42					
Osceola	4.46					
Polk	3.69					
Pinellas	2.13					
Manatee	2.11					

Table 2: The percentage of ELL students in 10 Florida counties with the highest percentage of ELL students. The counties are listed in order of highest density of ELL students, and the data shows that the top five counties educate over 61% of the K-12 ELL population.

County	ELL Status	Economic Status	# of students (K-12)	% of students (K-12)	ELL Graduation Rate
Miami Dade	Current ELL	Disadvantaged	48,739	82%	83.2%
Citrus	Current ELL	Disadvantaged	117	83%	No data
Collier	Current ELL	Disadvantaged	5,958	88%	74.3%
Hardee	Current ELL	Disadvantaged	221	80%	90.0%
Highlands	Current ELL	Disadvantaged	405	85%	75.7%
Hillsborough	Current ELL	Disadvantaged	17,985	87%	83.2%
Indian River	Current ELL	Disadvantaged	767	85%	85.7%
Martin	Current ELL	Disadvantaged	2,146	92%	80.1%
Nassau	Current ELL	Disadvantaged	153	81%	50.0%
Palm Beach	Current ELL	Disadvantaged	23,629	88%	74.4%

Table 3: Data showing the percentage of economically disadvantaged students and ELL students in 10 Florida counties. The data shows that these counties have both a high ELL population and high percentage of economically disadvantaged students in K-12 grades, for 2020-2021. The high school graduation rate for these counties is also provided for the 2020-2021 school year.

Language (ESOL) program and are in the one- to two-year follow-up period, or in the three- to four-year follow up period.

# Graduation rates of ELL and non-ELL students, graduation gap, and statistical analyses

In order to obtain eight years of data (2014-2022), a trend report was run from the Closing the Gap reporting section of the Florida Department of Education (12). The following parameters were used for obtaining the data: School year, Trend, Measure, Graduation Rate, Comparison, English language learners and Non-English language learners.

Data showing the average graduation rates per year was tabulated and the difference between the two subgroups was calculated. ANOVA and t-test statistical analyses were run using Excel.

#### Dropout rates for Hispanic and white students

The dropout rate data was gathered from the racial breakdown indicator in the Florida Department of Education's "Know your Data" site (18). The dropout percentage for Hispanic students was extracted from the data and tabulated, as was the percentage for white students. Two-tailed t-test statistical analysis was run on the data for the five-year period from 2017-2022.

#### Hispanic vs. white graduation rates

Graduation rates for white and Hispanic students were extracted from the Know your Data reports for the eightyear period from 2014-2022 from the Florida Department of Education (19). Mean and standard deviation were calculated, and t-test analysis was performed.

# Collection of data for ELL and non-ELL graduates, by density, throughout Florida

We used 2021-2022 data from the Florida Department of Education published information (18). Under the Assessments section, a report was generated for students in grades K-12. Further selection was made for the indicator type ELL Status in order to obtain the values for both ELL and non-ELL students. Data generated by the website included figures for every county in Florida. The percentage of ELL students each county held in relation to the total number of ELL students throughout Florida was then calculated from the raw data.

The top 10 most densely populated counties were included in Table 2.

# Collection of data for ELL and non-ELL graduation status throughout Florida by economic disadvantage status

We used data from the 2021-2022 published information from the Florida Department of Education (18). Under the Build a Table option, a report was generated for each county based on K-12 enrollment data. Indicator 1 was set to ELL status, and Indicator 2 was set to economic status. Raw data for those counties that reported their ELL and economic disadvantage percentages was then tabulated for the top ten counties reporting a greater than 80% population of students with both ELL status and economic disadvantage.

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